

STANDARDS END - PART I - ERIC SIEGEL

From the very first issue of Radical Software I have been writing about standards. In Radical Software number 3 I advised everyone to adopt the American 525 line standard. For people in America this seemed quite rational, but for people in Europe it seemed like I had some ulterior motive for pushing American equipment in Europe, the only motive I had is compatibility.

In Holland there are a handful of people doing video. Jack Moore was one of the sceptical ones until I hooked up my Sony (American standard) back pack to his European 625 line television receivers. The thing that amazed him is that you ~~must~~ don't need to buy new monitors. All that you must do is readjust the frame (vertical) hold control and the vertical size. Some picture wiggling is experienced, but the quality of the tv or monitor is the determining factor. If one uses transistor-monitors, it should be quite minimal, but in any case minor modifications to the power supply of the ~~modern~~ tv-set will cure the wiggles.

I also spoke to John Brumage who was once connected with Global Village... he is now in Amsterdam setting up another alternative television link. He too did not take much convincing of the practicality of adopting the American A.V. standard and has tried to convince more people to adopt the $\frac{3}{4}$ " American Standard.

I also met with Laurent Saurein who is setting up alternative television in Paris, they too will be using American standard. So what I am trying to show you is that we are on our way to world standardization provided this trend grows.

Sony and Phillips, a year ago agreed on a world standard for the Video cassette. In this period of time something went wrong. Rivalry developed and both firms decided to go their own way. They ~~simply~~ divided up the capitalistic world as follows: Sony would control Japan, the United States and Canada. While Phillips would control all of Europe. This means that Phillips because of international agreements cannot sell their Video cassette in America and Sony cannot sell their cassette in Europe. But its OK with both controlling parties because they both intend to come out with non-compatible systems. The Phillips cassette machine works with $\frac{1}{2}$ " video tape on the 625 line system and the Sony works on $\frac{3}{4}$ " tape in the 525 line system. VIDEO CASSETTE IS CAPITALISTIC BULLSHIT. We don't need it. We now have what we need and what we have been waiting for. The AV $\frac{3}{4}$ " 525 line machine. What I'm trying to tell you is that we have the cassette already and don't know it. If you fall for the colossal marketing trick

I SENT YOU A TAPE ON OCT 16, REGISTERED AT STOCKHOLM
IF YOU DON'T GET THE TAPE WRITE THE POST OFFICE NY + STOCKHOLM
REG NUMBER 5730 - STOCKHOLM 180

you will be defeating your own aim. If you wish to help kill another monster before it grows and causes more chaos like C.V. then A.V. did. Please write to everyone you know in Europe who is doing alternet television or who plans to, informing them of the situation.

We want a planetary video exchange now and so far every thing is working closer to that aim. You can speed up the process by writing some letters to Sony(in Japan) and Phillips in Eindhoven, Netherlands telling them, what we need, what we want, what we will buy and what we will try to prevent masses of people from buying. Remeber that we created the alternet television - movement we buy the equipment. Donn't let these heavy hardware capitalists create a segmented isolated in-compatability gap.

~~VIDEO CASSETTE REPRESENTS~~
~~VIDEO CASSETTES~~ represents no technical advancements. It is a marketing gimmick to sell more video tape-recorders. If you think you must have Video-cassette buy the Ampex. It is compatable with $\frac{1}{2}$ " A.V.. You just have to respool it. What is the advantage of cassette?

1. It is small
2. You don't have to thread it
3. You can stop it any place on the roll, and see and retreave at the same spot.

The ampex AV American machine does this. Yet it is not what the industry calls a cassette. But it is. It's unfortunate that I have to be salesman for Ampex, but the truth is that ^{they} have come out with a machine that fits all the requirements

PART II A.V. ~~IN~~ $\frac{1}{2}$ " IS THE INTERNATIONAL CASSETTE

In all $\frac{1}{2}$ " battery operated portable video tape-recorders there is a servo locked head drum motor. In American machines (in the head drum servo) is tuned to free run at a 60 cycle alternet current driving frequency. The motor is there for hovering at a harmonic multiple of the vertical scene rate which is the same as the 60 cycle house main current. This is how tracking of the video band is servioicly accomplished. Now in order to make an American Standard (which from now on I shall fefer to as the world standard video tape recorder) $\frac{1}{2}$ " video tape recorders work on the European standard is to readjust the driving oscillator free running frquency to 50 cuclees which is equivalent to the European house main current. By doing this simple adjustment you have just made an European $\frac{1}{2}$ " video tape recorder out of your American machine, and further more all of these European tapes are compatable with American standard A.V. machines, which change the driving oscillator from 50 to 60 cycles

If you have the Sony AV 3400 machine the addition of two 4.7 k ohms resistors,

switches across both resistors will make your machine switchable from 525 line American Av standard to 625 line European standard. That's all there is to it. Of course Sony has other plans. And so do we.

This means alternet video people will finally be able to send video taped establishment programs from countries for viewing. I must stress to you we now have the machine.

I shall also ask all video tape manufactures to colour code the plastic spool so that the Blue(or Grey) spools mean that the tapes are 525 American Standard and Red spools mean 625 line European standard. For the time being people can clearly mark in blue lettering 525 or in red lettering 625 on the spool.

I must make the implications of this clear, it means that all the cassette-machines manufactured by Sony and Phillips, which are still in their warehouses are obsolete and now unsaleable. Ampex once again, is the only one with a fighting chance. I leave it to Ampex to figure out P.A.L. colour for their Crtridge machine.

PART III ELECTRONIC CORRECTION

You have all made video tapes, which contain very valuable information but unfortunately, has very poor quality. One of the outstanding problems is shifting black level, which is produced by the automatic target control in the Sony AVC 3400 camera. In a previous article I described how to modify your camera to eliminate this problem in the future, but this doesn't help for the tapes which are already ruined. As you know I have developed a special device known as the processing Chromance Synthizer. Among the various things that it does, is black level correction, that is, it enables you to manually correct black level inaccuracies. It also allows you to increase the contrast, and it fills in sync. pulses where drop out is present on the tape. It also makes new blanking signals, new sync. signals and it allows you to color synthesize black and white tapes into color. In the future it will incorporate gamma correction which gives a better tonal range to the grey scale, and image enhancement circuitry to make the picture sharper and crisper than it really was. So in one device most technical problems with $\frac{1}{2}$ " video tape will be solved.

Many people wish to put their video tapes on the air. This has been done in America already and will continue to be done. The technical process by which this is done is called scan-conversion. Although American $\frac{1}{2}$ " video tape recorders have the same scanning rates as those transmitted by broadcast TV, it doesn't have the same stability. Therefore it must be re-scanned by an accurate broadcast TV camera, or an electronical device called a scan-converter. The heart of the scan-converter is a special tube that ~~looks~~ looks like two oscilloscopes cathode ray tubes face to face. One tube scans the image from the $\frac{1}{2}$ " tape. The other tube picks up the image for broadcasting. Note there are a very few TV